

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-12 (canceled).

13 (currently amended). An optical disk comprising:

a data layer;

a mask layer overlying the data layer and comprising a nonlinear optical material and nanoparticles embedded in the nonlinear optical material, wherein the nonlinear optical material is configured for providing an effective aperture within the mask layer upon a gate beam having a power ranging up to about 10 milliwatts being directed at the optical disk, and wherein the nanoparticles are configured for increasing a local field intensity; and
a substrate situated on at least one outer surface of the optical disk.

14 (original). The optical disk of claim 13 further comprising a spacer layer between the data and mask layers.

15 (original). The optical disk of claim 14 wherein the spacer layer comprises ZnS-SiO_2 .

16 (original). The optical disk of claim 14 wherein the spacer layer comprises SiN .

17 (canceled).

18 (original). The optical disk of claim 13 wherein the data layer comprises $\text{Ge}_2\text{Sb}_2\text{Te}_5$.

19 (original). The optical disk of claim 13 wherein the data layer comprises a dye doped organic material.

20 (original). The optical disk of claim 13 wherein at least part of the nonlinear material comprises a material selected from the group consisting of phase change materials, photo-refractive materials, photo-chromatic materials, and combinations thereof.

21 (original). The optical disk of claim 20 wherein the nonlinear material comprises antimony.

22 (original). The optical disk of claim 20 wherein the nonlinear material comprises an organic material.

23 (original). The optical disk of claim 13 wherein the nanoparticles comprise metallic nanoparticles.

24 (original). The optical disk of claim 23 wherein the metallic nanoparticles comprise silver.

25 (original). The optical disk of claim 23 wherein the metallic nanoparticles comprise gold.

26 (original). The optical disk of claim 23 wherein the nanoparticles comprise rods or shell structures.

27 (original). The optical disk of claim 26 wherein the nanoparticles comprise rods having widths of about 20 nanometers and lengths of about 50 nanometers.

28 (original). The optical disk of claim 26 wherein the nanoparticles comprise vertically aligned nanoparticles.

29 (original). The optical disk of claim 23 wherein nanoparticles comprise coated nanoparticles.

30 (original). The optical disk of claim 29 wherein a coating of the coated nanoparticles comprises oligonucleotides functionalized on the 5' or 3' end with alkythiol.

31-34 (canceled).